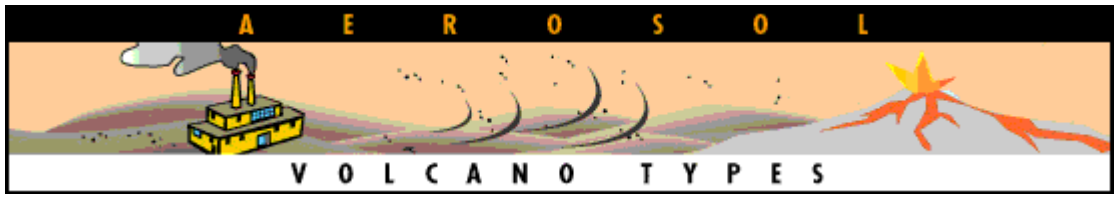

Objective:
Identify three types of volcano: Cinder Cone, Composite, and Shield.

Instructional Delivery
Whole Group, Cooperative Group, or Independent

Materials Needed
Volcano Worksheet <http://eosweb.larc.nasa.gov/EDDOCS/Aerosols/vol_sheet.html>

Activity:
The students are to categorize the three main types of volcanoes: Cinder Cone, Composite, and Shield.

CINDER CONE

Cinder Volcanoes are the simplest type of volcano. They are built from particles and blobs of congealed lava ejected from a single vent. Lava is blown into the air, which breaks into small fragments that solidify and fall as cinders around the vent to form a circular or oval cone. Most cinder cones have a bowl-shaped crater at the summit, and rarely rise more than a thousand feet or so above their surroundings.

COMPOSITE

Typically, composite volcanoes are steep-sided, symmetrical cones of large dimension built of alternating layers of lava flow, volcanic ash and cinders. Composite volcanoes will rise as much as 8,000 feet above their base. Most composite volcanoes have a crater at the summit, which contains a central vent or a clustered group of vents. One essential feature about composite volcanoes is the conduit system. This is when the magma from a reservoir deep in the Earth's crust rises to the surface. This type of volcano is built by the accumulation of materials erupted through the conduit, which increases in size as lava, cinders, and ash are added to its slopes.

SHIELD

Shield volcanoes are built almost entirely of fluid lava flow. Flow after flow pours out in all directions from a central summit vent, which builds a broad, gently sloping cone - much like a warrior's shield or a plateau. Shield volcanoes can be easily identified because they are tall and broad, with flat, rounded shapes.

ACTIVITY:

1. Students should research the list of volcanoes and then indicate the type of volcano. Students are to write detailed information they researched under the column that identifies that type of volcano.
2. If students are in cooperative groups, each group can research a different volcano to present before the class. Each presentation should include enough information about the volcano so the class can determine its type. Students are to write detailed information researched and presented under the column that identifies that particular type of volcano.

SUGGESTED VOLCANOES TO RESEARCH:

Craters of the Moon	Mt. Pinatubo	Mount Hood	Kilauea
Paricutin	Mount Cotopaxi	Mount Saint Helens	Mount Rainer
Mauna Loa	Mount Fuji	Mount Shasta	Mt. Etna

Search Volcanoes by Region
http://volcano.und.nodak.edu/vwdocs/volc_images/volc_images.html

Search Volcanoes by Name
http://volcano.und.nodak.edu/vwdocs/volc_images/sorted_by_volcano.html

Volcano Descriptions compliments of Volcano World - NASA Learning Technologies Project LTP

Links:
Craters of the Moon:
<http://volcano.und.nodak.edu/vwdocs/volc_images/north_america/craters_of_the_moon.html>
Paricutin: < http://volcano.und.nodak.edu/vwdocs/volc_images/img_paricutin.html>

Mauna Loa: <
http://volcano.und.nodak.edu/vwdocs/volc_images/north_america/hawaii/mauna_loa.html>
Mt. Pinatubo:
<http://volcano.und.nodak.edu/vwdocs/volc_images/southeast_asia/philippines/pinatubo.html
Mount Cotopaxi: <
http://volcano.und.nodak.edu/vwdocs/volc_images/img_cotopaxi.html>
Mount Fuji: <http://volcano.und.nodak.edu/vwdocs/volc_images/img_fuji.html
Mount Hood: <
http://volcano.und.nodak.edu/vwdocs/volc_images/north_america/mt_hood.html>
Mount Saint Helens: <
http://volcano.und.nodak.edu/vwdocs/volc_images/img_st_helens.html>
Mount Shasta: <
http://volcano.und.nodak.edu/vwdocs/volc_images/north_america/california/shasta.html>
Kilauea: <
http://volcano.und.nodak.edu/vwdocs/volc_images/north_america/hawaii/kilauea.html>
Mount Rainer: < http://volcano.und.nodak.edu/vwdocs/volc_images/img_rainier.html>
Mt. Etna: <http://volcano.und.nodak.edu/vwdocs/volc_images/img_etna.html>